



BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Certificate in Information Technology Pearson BTEC International Level 3 Subsidiary Diploma in Information Technology Pearson BTEC International Level 3 Foundation Diploma in Information Technology Pearson BTEC International Level 3 Diploma in Information Technology Pearson BTEC International Level 3 Extended Diploma in Information Technology
Unit number and title	Unit 24: Technical Fundamentals for Computing Professionals
Learning aim(s)	Learning aim A: Explore the mathematics, logic and processes of computer systems
Assignment title	Use scripting and coding to meet computing needs
Assessor	
Issue date	
Hand in deadline	

Vocational scenario or context	League Computing is a computing consultancy firm that analyses a client needs and designs computing infrastructure implementations that will meet its clients' business and operational goals. You have been offered an interview to become an intern at League Computing. As part of the recruitment process, you must demonstrate you have an understanding of the mathematics, logic and processes of computer systems. You will need to produce a portfolio of evidence that demonstrates your ability to produce computer scripts and programme code to meet different computing needs.
Task 1a	Demonstrate use of shell scripting (e.g. Bash, PowerShell, Command Prompt) to automate routine administrative tasks, including as a minimum: • performing file management operations, e.g. move, copy, delete rename • installing, removing and updating software • a batch processing task • two different system monitoring tasks, e.g. network packet analysis, CPU usage, IP LAN monitoring.



	Your evidence should clearly show the scripts you created and the system operations carried out. This could take the form of: • .txt files of the scripts used • annotated screenshots • screencast recordings with annotations and/or voice-overs.
Task 1b	Produce a series of computer programmes that demonstrate an understanding of developing program code to solve problems. Your evidence should show your ability to implement a range of fundamental coding conventions, including appropriate use of: • mathematical, relational and Boolean operators • data types, e.g. string, integer, float/real, Boolean • constants and variables • run-time data structures, e.g. list, array, tuple, dictionary • selection and iteration. It is recommended that, as a minimum, you produce three computer programmes as part of this task. You should provide a commentary showing the specific needs to be addressed for each program.
Checklist of evidence required	Portfolio of evidence including: • copies of shell scripts (screenshots or .txt files) • screenshots/screen casts of system operations carried out by the shell scripts • copies of program code as .txt • copies of completed/executable programs (as appropriate to the chosen language) • program commentary.
Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
A.D1	Produce a set of computer programs and scripts that are highly robust and make effective and efficient use of appropriate programming structures to meet identified needs
A.M1	Produce a set of computer programs and scripts that make effective use of appropriate programming structures to meet identified needs.
A.P1	Produce a set of computer programs and scripts that make use of appropriate programming structures to meet identified needs.



Sources of information to support you with this assignment	
Other assessment materials attached to this assignment brief	